

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/073

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/00 A61K31/4985 A61K31/277 A61K31/352 A61K31/223  
A61K31/415 A61K31/325 A61K45/06 A61P31/04 A61P15/14  
A61K31/69

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, WPI Data, PAJ, MEDLINE, EMBASE, SCISEARCH, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BOUCHARD L ET AL: "Nitric oxide production during endotoxin-induced mastitis in the cow" JOURNAL OF DAIRY SCIENCE, (DEC 1999) VOL. 82, NO. 12, PP. 2574-2581. PUBLISHER: AMER DAIRY SCIENCE ASSOC, 1111 N DUNLAP AVE, SAVOY, IL 61874. ISSN: 0022-0302., XP001109451 AGR & AGRI FOOD CANADA, DAIRY & SWINE RES & DEV CTR, POB 90, 2000 ROUTE 108 E, LENNOXVILLE, PQ J1M 1Z3, CANADA (Reprint); AGR & AGRI FOOD CANADA, DAIRY & SWINE RES & DEV CTR, LENNOXVILLE, PQ J1M 1Z3, CANADA; MCGILL UNIV DEPT ANIM SCI, ST ANNE BELLEVUE, PQ H9X 3V9, CANADA abstract page 2574, column 2, paragraph 1 page 2578, column 2, paragraph 2 - paragraph 3 -/--	1-3

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

\* & \* document member of the same patent family

Date of the actual completion of the international search

5 November 2003

Date of mailing of the international search report

03/12/2003

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP/50373

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>page 2579, column 2, paragraph 3 -page 2580, column 1, paragraph 2</p> <p>---</p> <p>DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; May 2001 (2001-05) ZOUKI CHRISTINE ET AL: "Peroxynitrite mediates cytokine-induced IL-8 gene expression and production by human leukocytes." Database accession no. PREV200100325362 XP002226807 abstract &amp; JOURNAL OF LEUKOCYTE BIOLOGY, vol. 69, no. 5, May 2001 (2001-05), pages 815-824, ISSN: 0741-5400</p> <p>---</p>	
A	<p>ONODA M (REPRINT) ET AL: "Effect of curcumin on the production of nitric oxide by cultured rat mammary gland" NITRIC OXIDE-BIOLOGY AND CHEMISTRY, (OCT 2000) VOL. 4, NO. 5, PP. 505-515 PUBLISHER: ACADEMIC PRESS INC, 525 B ST, STE 1900, SAN DIEGO, CA 92101-4495. ISSN: 1089-8603., XP001133827 NATL INST RADIOL SCI, RES GRP 1, INAGE KU, 4-9-1 ANAGAWA, CHIBA 2638555, JAPAN (Reprint) abstract page 513, column 1, paragraph 2 page 513, column 2, paragraph 2</p> <p>---</p>	1-7
A	<p>WO 00 56341 A (CHARTERHOUSE THERAPEUTICS LTD ;ROBERTS STANLEY MICHAEL (GB); GUYOT) 28 September 2000 (2000-09-28) page 9, paragraph 2 - paragraph 3 page 11, paragraph 2 - paragraph 4</p> <p>---</p>	1-7
A	<p>DATABASE MEDLINE 'Online! 15 December 1968 (1968-12-15) NEWBOLD F H: "Epizootiology of mastitis due to staphylococcus aureus." Database accession no. NLM5749697 XP002226808 abstract &amp; JOURNAL OF THE AMERICAN VETERINARY MEDICAL ASSOCIATION. UNITED STATES 15 DEC 1968, vol. 153, no. 12, 15 December 1968 (1968-12-15), pages 1683-1687, ISSN: 0003-1488</p> <p>---</p>	

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International Application No  
PCT/EP 95/0373

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WO 01 21202 A (KENNEDY RHEUMATOLOGY INST ;FELDMANN MARC (GB); BRENNAN FIONULA MAR) 29 March 2001 (2001-03-29) page 5, line 11 - line 14 page 6, line 19 page 10, line 23 -page 11, line 6 page 19, line 7 -page 20, line 24 claims 1,4</p> <p>---</p>	1-7
A	<p>WO 96 13266 A (PROSCRIPT INC) 9 May 1996 (1996-05-09) page 5, line 1 - line 7 page 9, line 20 -page 10, line 2 page 25, line 3 - line 17 page 30, line 9 - line 13 page 31, line 23 - line 24 page 37, line 18 -page 38, line 5 page 41, line 7 -page 42, line 22 examples MG-341; table 1 claims 69,73,74,78</p> <p>-----</p>	1-7

# INTERNATIONAL SEARCH REPORT

International application No.  
EP 03/50373

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☒ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## Continuation of Box I.2

Present claims 1-5 and 7 relate to compounds which actually are not well-defined. The use of the definitions "a NF-kappaB inhibitor" and "a specific NF-kappaB inhibitor" in the present context is considered to lead to a lack of clarity within the meaning of Article 6 PCT. The lack of clarity is such as to render a meaningful complete search impossible. In addition, present claims 4-7 relate to a very large number of possible compounds, namely "antibiotics". Support within the meaning of Article 6 PCT and disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the compounds claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Consequently, the search has been restricted to the use of the NF-kappaB inhibitors specified in claim 6 for the treatment of mastitis, optionally in combination with the antibiotics specifically mentioned in the description, p. 4, lines 20-25, with due regard to the general idea underlying the application.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP/50373

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0056341	A	28-09-2000	AU 3665700 A CA 2366877 A1 EP 1165092 A1 WO 0056341 A1 JP 2002539264 T	09-10-2000 28-09-2000 02-01-2002 28-09-2000 19-11-2002
WO 0121202	A	29-03-2001	AU 7436100 A CA 2383462 A1 EP 1220922 A2 WO 0121202 A2 JP 2003509471 T	24-04-2001 29-03-2001 10-07-2002 29-03-2001 11-03-2003
WO 9613266	A	09-05-1996	US 6083903 A AT 241631 T AU 710564 B2 AU 4139896 A CA 2203936 A1 CN 1168633 A DE 69530936 D1 DK 788360 T3 EP 1312609 A1 EP 0788360 A1 FI 971746 A JP 10510245 T NO 971929 A NZ 296717 A NZ 337211 A US 6066730 A WO 9613266 A1 US 2002173488 A1 US 6617317 B1 US 2003199561 A1 US 6297217 B1 US 5780454 A US 6465433 B1 ZA 9509119 A	04-07-2000 15-06-2003 23-09-1999 23-05-1996 09-05-1996 24-12-1997 03-07-2003 22-09-2003 21-05-2003 13-08-1997 06-06-1997 06-10-1998 12-06-1997 29-11-1999 22-12-2000 23-05-2000 09-05-1996 21-11-2002 09-09-2003 23-10-2003 02-10-2001 14-07-1998 15-10-2002 27-05-1996